January 2005 Terrestrial Animal Health Standards Commission Report

Guidelines For the Transport of Animals By Sea

Article 1

Responsibilities

Once the decision to transport animals by sea has been made, the welfare of animals during their transport is paramount and is the joint responsibility of all people involved. These guidelines may also be applied to the transport of animals by water within a country.

The management of animals at post-discharge facilities is outside the scope of this document.

The roles of each of those responsible are defined below:

- Exporters, owners of animals and managers of facilities are jointly responsible for the general health of the animals and their fitness for the *journey*.
- The *exporter* has overall responsibility for the organisation, carrying out and completion of the *journey*, regardless of whether duties are subcontracted to other parties during transport. The *exporter* is also responsible for ensuring that equipment and medication are provided as appropriate for the species and *journey*, and for the presence during the *journey* of at least one *animal handler* competent for the species being transported. The *exporter* is also responsible for ensuring compliance of the animals with any required veterinary certification and, in the case of animals for export, any other requirements of the importing and exporting countries.
- Business or buying/selling agents have a joint responsibility with owners for the selection of
 animals that are fit to travel. They have a joint responsibility with masters of vessels and
 managers of facilities at the start and at the end of the *journey* for the availability of suitable
 facilities for the assembly, *loading*, transport, *unloading* and holding of animals, and for
 emergencies.
- Animal handlers are responsible for the humane handling and care of animals, especially during loading and unloading. To carry out these responsibilities, they should have the authority to take prompt action.
- The *exporter*, the shipping company and the master of the vessel are jointly responsible for planning the journey to ensure the care of the animals, including:
 - o choosing appropriate *vessels* and ensuring that competent *animal handlers* are available for *loading* and caring for animals throughout the *journey*,
 - o developing and keeping up to date contingency plans to address emergencies (including adverse weather conditions) and minimise stress during transport,
 - o correct *loading* of the ship, regular inspections during the *journey* and for appropriate responses to problems arising
 - o disposal of carcases according to international law.

- To carry out these responsibilities, the people involved should be competent regarding transport regulations, equipment usage, humane handling and the care of animals.
- Managers of facilities during *loading* of the animals are responsible for:
 - o providing suitable premises for *loading* the animals,
 - o providing competent *animal handlers* to load the animals in a manner that causes minimum stress and injury,
 - o providing appropriate facilities for emergencies,
 - o providing facilities and veterinarians or competent animal handlers capable of killing animals humanely when required.
- Managers of facilities at the end of the *journey* are responsible for:
 - o providing suitable facilities for *unloading* the animals onto transport vehicles for immediate movement or securely holding the animals in lairage, with shelter, water and feed, when required, for transit,
 - o providing competent animal handlers to unload the animals with minimum stress and injury,
 - o minimising the opportunities for disease transmission while the animals are in the facilities,
 - o providing appropriate facilities for emergencies,
 - o providing facilities and veterinarians or competent *animal handlers* capable of killing animals humanely when required.
- The responsibilities of the *Competent Authority* of the exporting country include:
 - o establishing minimum standards for animal welfare, including requirements for inspection of animals before and during their travel, and for certification and record keeping,
 - o approving facilities, containers, vehicles/vessels for the holding and transport of animals,
 - o setting competence standards for *animal handlers* and managers,
 - o ensuring that the *vessel* transporting animals meets the required standards, including those of the importing country,
 - o implementation of the standards, including through accreditation of / interaction with other organisations and competent authorities,
 - o monitoring and evaluating health and welfare performance, including the use of any veterinary medications.
- The responsibilities of the *Competent Authority* of the importing country include:
 - o establishing minimum standards for animal welfare, including requirements for inspection of animals after their travel, and for certification and record keeping,
 - o approving facilities, *containers* and vehicles for the *unloading*, holding and transport of animals,

- o setting competence standards for animal handlers and managers,
- o implementation of the standards, including through accreditation of / interaction with other organisations and competent authorities,
- o ensuring that the exporting country is aware of the required standards for the *vessel* transporting the animals,
- o monitoring and evaluating health and welfare performance, including the use of any veterinary medications.
- Veterinarians are responsible for the humane handling and treatment of animals during the *journey*. To carry out these responsibilities, they should have the authority to act and report independently.
 - O The veterinarian should meet with the Master, Chief Officer and the senior *animal handler* on a daily basis.

Competence

- All people handling animals or who are otherwise responsible for animals during *journeys*, should
 be competent according to their responsibilities listed in Article 1. Competence in areas other
 than animal welfare would need to be addressed separately. Competence may be gained through
 formal training and/or practical experience.
- This competence should be demonstrated through a current certificate in one of the OIE official languages from an independent body accredited by a *Competent Authority*.
- Assessment of competence for *animal handlers* should at a minimum address knowledge, and ability to apply that knowledge, in the following areas:
 - o responsibilities for animals during the *journey*,
 - o sources of advice and assistance,
 - o animal behaviour, general signs of disease, and indicators of poor animal welfare such as stress, pain and fatigue, and their alleviation,
 - o relevant authorities and applicable transport regulations, and associated documentation requirements,
 - o general disease prevention procedures, including cleaning,
 - o appropriate methods of animal handling during transport and associated activities such as assembling, *loading*, and *unloading*,
 - o methods of inspecting animals, managing situations frequently encountered during transport such as adverse weather conditions, and dealing with emergencies,
 - o species-specific aspects of animal handling and care, including feeding, watering and inspection,
 - appropriate record keeping and journey log.
- Assessment of competence for *exporters* should at a minimum address knowledge, and ability to apply that knowledge, in the following areas:

- o planning a *journey*, including appropriate *space allowances*, and feed, water and ventilation requirements,
- o relevant authorities and applicable transport regulations, and associated documentation requirements,
- o appropriate methods of animal handling during transport and associated activities such as cleaning and disinfection, assembling, *loading*, and *unloading*,
- o species-specific aspects of animal handling and care, including appropriate equipment and medication,
- o sources of advice and assistance,
- o appropriate record keeping and journey log.
- o managing situations frequently encountered during transport such as adverse weather conditions, and dealing with emergencies

Documentation

- Animals should not be loaded until the documentation required to that point is complete.
- The documentation accompanying the consignment should include:
 - o journey travel plan,
 - o time, date and place of loading,
 - o the journey log a daily record of inspection and important events which includes records of morbidity and mortality, climatic conditions, food and water consumed, medication provided, mechanical defects,
 - o time, date and place of arrival and unloading,
 - o veterinary certification, when required,
 - o animal identification to allow traceback of individual animals to the premises of departure, and where possible to the premises of origin,
 - o details of animals at risk,
 - o number of animal handlers on board, and their competencies,
 - o stocking density estimate for each load in the consignment.
- Veterinary certification should accompany consignments of animals and address:
 - o cleaning and disinfection of the *vessel*,
 - o fitness of the animals to travel,
 - o animal identification (description, number, etc.),
 - o health status including tests, treatment and vaccinations carried out, if required.

Planning the journey

General

- Adequate planning is a key factor affecting the welfare of animals during a *journey*.
- Before the journey starts, plans should be made in relation to:
 - o type of transport vessel required,
 - o route, taking into account distance, expected weather and sea conditions,
 - o nature and duration of *journey*,
 - o daily care and management of the animals,
 - o avoiding the mixing of animals from different sources in a single pen group.
 - o provision of appropriate equipment and medication for the numbers and species carried
 - o emergency response procedures
- Preconditioning may be required, e.g. for dry food, and unfamiliar methods of supply of feed and water.
- Potential for spread of infectious disease
 - o when requested by the *Veterinary Authority* of the importing country, animals should be vaccinated against diseases to which they are likely to be exposed at their destination.
- There should be planning for water and feed availability during the *journey*. Feed should be of appropriate quality and composition for the species, age, condition of the animals, etc.
- Extreme weather conditions are hazards for animals undergoing transport and require appropriate vessel design to minimise risks. Special precautions should be taken for animals that have not been acclimatised or which are unsuited to either hot or cold conditions. In some extreme conditions of heat or cold, animals should not be transported at all.
- Behaviour-modifying or other medication should not be used routinely during transport. Such medicines should only be administered when a problem exists in an individual animal, and should be administered by a veterinarian or other person who has been instructed in their use by a veterinarian. Treated animals should be placed in a dedicated area.
- There should be an emergency management plan that identifies the important adverse events that may be encountered during the *journey*, the procedures for managing each event and the action to be taken in an emergency. For each important event, the plan should document the actions to be undertaken and the responsibilities of all parties involved, including communications and record keeping.

Vessel and container design and maintenance

- Vessels used for the sea transport of animals should be designed, constructed and fitted as
 appropriate to the species, size and weight of the animals to be transported; special attention
 should be paid to the avoidance of injury to animals through the use of secure smooth fittings
 free from sharp protrusions and the provision of non-slip flooring. The avoidance of injury to
 animal handlers while carrying out their responsibilities should be emphasised.
- Vessels should be designed to permit thorough cleaning and disinfection, and the management of faeces and urine.
- Vessels should be maintained in good mechanical and structural condition.
- Vessels should have adequate ventilation to meet variations in climate and the thermo-regulatory needs of the animal species being transported; the ventilation system should be capable of operating when the vessel is stationary and the air flow should be adjustable.
- The feeding and watering system should be designed to permit adequate access to feed and water appropriate to the species, size and weight of the animals, and to minimise soiling of pens.
- Vessels should be designed so that the faeces or urine from animals on upper levels do not soil animals on lower levels, or their feed or water.
- Stowage of feed and bedding should be carried out in such a way to ensure protection from the elements and sea water
- Where appropriate, suitable bedding, such as straw or sawdust, should be added to vessel floors
 to assist absorption of urine and faeces, provide better footing for animals and protect animals
 (especially young animals) from hard or rough flooring surfaces and adverse weather conditions.
- The above principles apply also to *containers* used for the transport of animals.

Special provisions for transport in road vehicles on roll-on/roll-off vessels or for containers

- Road vehicles and *containers* should be equipped with a sufficient number of adequately designed, positioned and maintained securing points enabling them to be securely fastened to the *vessel*.
- Road vehicles and *containers* should be secured to the ship before the start of the sea journey to prevent them being displaced by the motion of the *vessel*.
- Vessels should have adequate ventilation to meet variations in climate and the thermo-regulatory needs of the animal species being transported, especially where the animals are transported in a secondary vehicle/container on enclosed decks.

Space allowance

• The number of animals which should be transported on a *vessel* and their allocation to different pens on the *vessel* should be determined before *loading*.

- The amount of space required, including headroom, depends on the species of animal and should allow the necessary thermoregulation. Each animal should be able to assume its natural position for transport (including during *loading* and *unloading*) without coming into contact with the roof or upper deck of the *vessel*. When animals lie down, there should be enough space for every animal to adopt a comfortable, normal lying posture.
- Calculations for the space allowance for each animal should be carried out, using the figures given in these guidelines or, in their absence, in a relevant national or international document. The size of pens will affect the number of animals in each.
- The same principles apply when animals are transported in *containers*.

Ability to observe animals en route

- Animals should be positioned to enable them to be observed regularly during the journey to
 ensure their safety and good welfare.
- To allow an adequate inspection of animals en route, it should be possible for each animal to be clearly observed by the *animal handler* or other responsible person.

Emergency response procedures

Appropriate contingency plans to address emergencies should be prepared in advance.

Article 5

Pre-journey period

General

- Before each *journey*, *vessels* should be thoroughly cleaned and treated for animal and public health purposes, using chemicals approved by the *Competent Authority*. When cleaning is necessary during a *journey*, this should be carried out with the minimum of stress to the animals.
- In some circumstances, animals may require pre-journey assembly. In these circumstances, the following points should be considered:
 - o For animals such as pigs which are susceptible to motion sickness, and in order to reduce urine and faeces production during the *journey*, a short period of feed deprivation prior to *loading* is desirable.
 - O When animals will be provided with a novel diet or method of water provision during or after transport, an adequate period of pre-exposure is necessary. Preconditioning to the feed to be used on the *vessel* may be necessary in such cases.
- Pre-journey holding areas should be designed to:
 - o securely contain the animals,

- o maintain an environment safe from hazards, including predators and disease,
- o protect animals from exposure to adverse weather conditions, and
- o allow for rest, watering and feeding.

Selection of compatible groups

- Compatible groups should be selected before transport to avoid adverse animal welfare consequences. The following guidelines should be applied when assembling groups of animals:
 - o animals of different species should not be mixed unless they are judged to be compatible,
 - o animals of the same species can be mixed unless there is a significant likelihood of aggression; aggressive individuals should be segregated,
 - o young or small animals may need to be separated from older or larger animals, with the exception of nursing mothers with young at foot,
 - o animals with horns or antlers should not be mixed with animals lacking horns or antlers,
 - o animals reared together should be maintained as a group; animals with a strong social bond, such as a dam and offspring, should be transported together.

Fitness to travel

- Animals should be inspected before travel and those found unfit to travel by farm staff, *animal* bandlers or veterinarians should not be loaded onto a vessel.
- Humane and effective arrangements should be made by the owner or agent for the handling and care of any animal rejected as unfit to travel.
- Animals that are unfit to travel include:
 - o those that are sick, injured, weak, disabled or fatigued,
 - o those that are unable to stand unaided and bear weight on each leg,
 - o those that are blind in both eyes,
 - o those that cannot be moved without causing them additional suffering,
 - o newborn with an unhealed navel,
 - o females travelling without young which have given birth within the previous 48 hours,
 - o pregnant animals which would be in the final 10% of their gestation period at the planned time of unloading.
- Risks during transport can be reduced by selecting animals best suited to the conditions of travel and those that are acclimatised to expected weather conditions.
- Animals at risk, and requiring better conditions and additional attention during transport include:
 - o very large or obese individuals,

- o very young or old animals,
- o excitable or aggressive animals,
- o animals which have had little contact with humans,
- o females in the last third of pregnancy or in heavy lactation.
- Hair or wool length needs consideration in relation to the weather conditions expected.

Loading

Experienced supervision

- Loading should be carefully planned as it has the potential to be the cause of poor welfare in transported animals.
- Loading should be supervised by the Competent Authority and managed by an animal handler(s). Animal handlers should ensure that animals are loaded quietly and without unnecessary noise, harassment or force, and that untrained assistants or spectators do not impede the process.
- Ventilation during *loading* and the *journey* should provide for fresh air, and the removal of excessive heat, humidity and noxious fumes (such as ammonia and carbon monoxide). Under warm and hot conditions, ventilation should allow for the adequate convective cooling of each animal. In some instances, adequate ventilation can be achieved by increasing the *space allowance* for animals.

Facilities

- The facilities for *loading* including the collecting area at the wharf, races and loading ramps should be designed and constructed to take into account of the needs and abilities of the animals with regard to dimensions, slopes, surfaces, absence of sharp projections, flooring, sides etc.
- All loading facilities should be properly illuminated to allow the animals to be easily inspected by the *animal handler(s)*, and to allow the animals' ease of movement at all times.

Goads and other aids

- The following principles should apply:
 - O Goads (aids for encouraging animals to move) should not be used on animals that have little or no room to move.
 - O Useful and permitted goads include panels, flags, plastic paddles, flappers (a length of cane with a short strap of leather or canvas attached), plastic bags and metallic rattles; they should be used in a manner sufficient to encourage and direct movement of the animals but without physical contact with them.
 - O Unsuitable goads such as large wooden sticks, sticks with sharp ends, lengths of metal piping, fencing wire or heavy leather belts should not be used to strike animals.

- O The use of goads which administer electric shocks should be discouraged, and restricted to that necessary to assist movement of the animal. If such use is necessary, it should be limited to the hindquarters of pigs and large ruminants, and never on sensitive areas such as the eyes, mouth, ears, anogenital region or belly. Such instruments should not be used on horses, sheep and goats of any age, or on calves or piglets.
- o The use of well trained dogs to help with the *loading* of some species may be acceptable.
- O Manual lifting is permissible for young animals that may have difficulty negotiating ramps, but the lifting of animals by their tail, head, horns, ears, limbs, wool or hair should not be permitted.

Travel

Inspections

- Competent *animal handler(s)* should check the consignment immediately before departure to ensure that the animals have been loaded according to the load plan. Each consignment should be checked again within 24 hours.
- Adjustments should be made to the stocking density within 48 hours of departure and as appropriate during the *journey*.
- Each pen of animals should be observed on a daily basis for normal behaviour, health and welfare, and the correct operation of ventilation, watering and feeding systems. There should also be a night patrol. Any necessary corrective action should be undertaken promptly.
- Adequate access to suitable feed and water should be ensured for all animals in each pen.

Sick and injured animals

- Sick or injured animals should be segregated/isolated.
- Sick or injured animals should be treated promptly and appropriately, and veterinary advice should be sought if necessary. All drugs and products should be used in accordance with the manufacturer's recommendations.
- A record of treatments carried out and their outcomes should be kept.
- When euthanasia is necessary, the person responsible for the animals must ensure that it is
 carried out humanely, and results in immediate death. When necessary, assistance should be
 sought from a veterinarian or other person(s) competent in euthanasia procedures.
 Recommendations for specific species are described in Chapter on humane killing of animals for
 disease control purposes.

Cleaning and disinfection

- Vessels and containers, used to carry the animals should be cleaned before re-use through the
 physical removal of manure and bedding by scraping, washing and flushing vessels and containers
 with water. This should be followed by disinfection when there are concerns about disease
 transmission.
- Manure, litter and bedding should be disposed of in such a way as to prevent the transmission of disease and in compliance with all relevant health and environmental legislation.
- Where cleaning or *disinfestation* is necessary during travel, it should be carried out with the minimum stress to the animals.

Unloading and post-journey handling

General

- The required facilities and the principles of animal handling detailed in Article 6 (Loading) apply
 equally to unloading, but consideration should be given to the likelihood that the animals will be
 fatigued.
- *Unloading* should be carefully planned as it has the potential to be the cause of poor welfare in transported animals.
- A livestock *vessel* should have priority attention when arriving in port and have priority access to a berth with suitable unloading facilities. As soon as possible after the ship's arrival at the port and acceptance of the consignment by the *Competent Authority*, animals should be unloaded into appropriate facilities.
- The accompanying *veterinary certificate* and other documents should meet the requirements of the importing country. Veterinary inspections should be completed as quickly as possible.
- Unloading should be supervised by the Competent Authority and managed by a competent animal handler(s). The animal handlers should ensure that animals are unloaded quietly and without unnecessary noise, harassment or force, and that untrained assistants or spectators do not impede the process.

Facilities

- The facilities for *unloading* including the collecting area at the wharf, races and unloading ramps should be designed and constructed to take into account of the needs and abilities of the animals with regard to dimensions, slopes, surfaces, absence of sharp projections, flooring, sides etc.
- All unloading facilities should be properly illuminated to allow the animals to be easily inspected by the *animal handler(s)*, and to allow the animals' ease of movement at all times.
- In case of emergencies, port facilities should provide animals with appropriate care and comfort, adequate space, access to quality feed and clean drinking water, and shelter from extreme weather conditions.

Sick and injured animals

- In some cases, where animals are non-ambulatory due to fatigue, injury or sickness, it may be in the best welfare interests of the animal to be treated or euthanased aboard the *vessel*.
- If *unloading* is in the best welfare interests of animals that are fatigued, injured or sick, there should be appropriate facilities and equipment for the humane unloading of such animals. These animals should be unloaded in a manner that causes the least amount of suffering. After *unloading*, appropriate facilities and treatments should be provided for sick or injured animals.

Actions in the event of a refusal to allow the import of a shipment

- The welfare of the animals should be the first consideration in the event of a refusal to import.
- When a shipment has been refused import, the *Competent Authority* of that country should make available suitable isolation facilities to allow the *unloading* of animals from a *vessel* and their secure holding, without posing a risk to the health of the national herd, pending resolution of the situation. In this situation, the priorities should be:
 - o the *Competent Authority* of the importing country should provide urgently in writing the reasons for the refusal,
 - o in the event of a refusal for animal health reasons, the *Competent Authority* of the importing country should provide urgent access to an OIE-appointed veterinarian(s) to assess the animals' health status with regard to the importing country's concerns, and the necessary facilities and approvals to expedite the required diagnostic testing
 - o the *Competent Authority* of the importing country should provide access to allow continued assessment of the ongoing health and welfare situation,
 - o if the matter cannot be promptly resolved, the *Competent Authority* of the exporting and importing countries should call on the OIE to mediate.
- In the event that the animals are required to remain on the *vessel*, the priorities should be:
 - o the *Competent Authority* of the importing country should allow reprovision of the *vessel* with water and feed as necessary,
 - o the *Competent Authority* of the importing country should provide urgently in writing the reasons for the refusal,
 - o in the event of a refusal for animal health reasons, the *Competent Authority* of the importing country should provide urgent access to an OIE-appointed veterinarian(s) to assess the animals' health status with regard to the importing country's concerns, and the necessary facilities and approvals to expedite the required diagnostic testing,
 - o the *Competent Authority* of the importing country should provide access to allow continued assessment of the ongoing health and welfare situation,
 - o if the matter cannot be urgently resolved, the *Competent Authorities* of the exporting and importing countries should call on the OIE to mediate.

• The OIE should utilise its dispute settlement mechanism to identify a mutually agreed solution which will address the animal health and welfare issues in a timely manner.

Article 10

Species specific issues

Cattle are sociable animals and may become agitated if they are singled out. Social order is usually established at about two years of age. When groups are mixed, social order has to be re-established and aggression may occur until a new order is established. Crowding of cattle may also increase aggression as the animals try to maintain personal space. Social behaviour varies with age, breed and sex; Bos indicus and Bos indicus-cross animals are usually more temperamental than European breeds. Young bulls, when moved in groups, show a degree of playfulness (pushing and shoving) but become more aggressive and territorial with age. Adult bulls have a minimum personal space of six square metres. Cows with young calves can be very protective, and handling calves in the presence of their mothers can be dangerous.

Goats should be handled calmly and are more easily led or driven than if they are excited. When goats are moved, their gregarious tendencies should be exploited. Activities which frighten, injure or cause agitation to animals should be avoided. Bullying is particularly serious in goats. Housing strange goats together could result in fatalities, either through physical violence, or subordinate goats being refused access to food and water.

Sheep are sociable animals with good eyesight and tend to "flock together", especially when they are agitated. They should be handled calmly and their tendency to follow each other should be exploited when they are being moved. Sheep may become agitated if they are singled out for attention and will strive to rejoin the group. Activities which frighten, injure or cause agitation to sheep should be avoided. They can negotiate steep ramps.

Pigs have poor eyesight, and may move reluctantly in strange surroundings. They benefit from well lit loading bays. Since they negotiate ramps with difficulty, these should be as level as possible. Ideally a hydraulic lift should be used for greater heights. Pigs also negotiate steps with difficulty. A good 'rule-of-thumb' is that no step should be higher than the pig's front knee.

Horses in this context include all solipeds, donkeys, mules, hinnies and zebra. They have good eyesight and a very wide angle of vision. They may have a history of loading resulting in good or bad experiences. Good training should result in easier loading, but some horses can prove difficult, especially if they are inexperienced or have associated loading with poor transport conditions. In these circumstances two experienced handlers can load an animal by linking arms or using a strop below its rump. Blindfolding may even be considered. Ramps should be as shallow as possible. Steps are not usually a problem when horses mount a ramp, but they tend to jump a step when descending, so steps should be as low as possible. Horses benefit from being individually stalled, but may be transported in compatible groups. When horses are to travel in groups, their shoes should be removed.

Camelids in this context comprise llamas, alpacas, guanaco and vicuna. They have good eyesight and, like sheep, can negotiate steep slopes, though ramps should be as shallow as possible. They load most easily in a bunch as a single animal will strive to rejoin the others. Whilst they are usually docile, they have an unnerving habit of spitting in self-defence. During transport they usually lie down. They frequently extend their front legs forward when lying, so gaps below partitions should be high enough so that their legs are not trapped when the animals rise.